

Introduction

The Public Employee Retirement Administration Commission (PERAC) has completed our third Experience Study of the State Retirement System. This report presents the results of our experience analysis for members of the State Retirement System (SRS) over the six-year period from January 1, 2006 through December 31, 2011 and is based on annual data provided to us by the SRS each year from January 1, 2006 through January 1, 2012.

The nature of an experience study is to track annual salary increases and how members leave a system (retirement, death, disability, or withdrawal) and, if warranted, to adjust our actuarial assumptions based on both this past experience as well as anticipated future experience. This task requires a more thorough review of the data provided for each annual actuarial valuation.

Please note that PERAC recommended reducing the investment return assumption from 8.25% to 8.0% effective with the January 1, 2013 actuarial valuation. The investment return assumption is not part of this experience analysis. In determining the effect of the revised assumptions, we used the 8.0% investment return assumption.

Each year as part of the valuation, we test how well the assumptions are working by performing a gain/loss analysis. If plan liabilities increase more than expected, there is an actuarial loss. Conversely, if plan liabilities increase less than expected, there is an actuarial gain. If each year the results consistently produced an actuarial loss (or an actuarial gain), then this would indicate that the assumptions are not properly reflecting actual experience. In this way, the annual gain/loss analysis serves as a proxy to the performance of a detailed experience study.

We reviewed the gains and losses on plan liabilities (excluding asset gains and losses) from 2006 through 2011. PERAC performed State valuations for each year in this period. Our review of the gains and losses over this period shows that, overall, the actuarial assumptions were generally reasonable but slightly conservative. There were actuarial gains (experience better than anticipated) in 5 of the 6 years ranging from \$33 million to \$346 million. There was an actuarial loss in 2006 of \$163 million. Over the entire 6-year period, the assumptions generated a net cumulative gain of \$694 million, or an average gain of \$116 million per year. This amount is quite small considering the total actuarial accrued liability of approximately \$27.8 billion as of January 1, 2012 (average gain of less than ½ of 1% of actuarial liability each year).

As part of this experience study, we performed member reconciliations of actual retirements, terminations, and disabilities over the 6-year period. We analyzed these results using not only our valuation data from each year, but also listings generated by the PERAC disability unit.

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The annual funding schedule appropriation (the total plan cost) reflects two sources of plan costs and liabilities. The first is the amortization of the unfunded actuarial liability (UAL). The actuarial accrued liability less plan assets equals the UAL. The UAL was amortized through FY40 under the prior Commonwealth funding schedule. In January, 2014, the schedule was revised with total appropriation payments that increase 10.0% in FY15, FY16, and FY17 and 7.0% thereafter. Based on the January 1, 2013 actuarial valuation results, the amortization of the UAL is completed in FY36. In addition to the amortization of the UAL, the annual appropriation also reflects the normal cost (or current cost), which represents the value of benefits accruing during the coming year. The measure of the impact on the total plan cost of any change in assumptions is the impact of that change on these two components.

Although the normal cost and actuarial liability directly determine the appropriation under the funding schedule, these items are components that make up a portion of the present value of future benefits (PVFB). The PVFB may be the most accurate measure of the “true” total cost of a plan since it represents the present value of total projected benefits for all active, inactive and retired members. Any change in the actuarial assumptions will change the PVFB and, accordingly, the normal cost and actuarial liability.

Overall, our revised assumptions decrease the total plan cost. This is consistent with the cumulative actuarial gains over the 6-year period. The revised assumptions are reflected in our January 1, 2013 actuarial valuation.

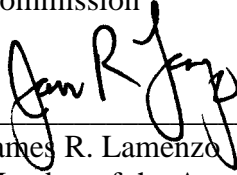
Our study focused on the demographic assumptions that have the greatest impact on plan costs (salary increases, retirement, disability, withdrawal, and mortality). There are a number of other demographic assumptions (including the percentage of disabilities that are job related and the percentage of active members that are married) which appear reasonable but were not reviewed in detail as part of this study. In addition, we used the same assumptions for the group of active members hired after April 1, 2012 (and subject to a different benefit structure under Chapter 176 of the Acts of 2011) as for members hired prior to April 1, 2012. Since these members are a number of years from retirement and we have no basis to determine a different assumption set, we believe this is a reasonable approach at this time.

It is important to note that the results for the SRS reflect only one component of the Total Commonwealth Obligation. The other components are the Massachusetts Teachers’ Retirement System, Boston teachers, and reimbursements to local systems to reflect COLAs granted from 1982 through 1996. The experience study of the Massachusetts Teachers’ Retirement System is in progress and will be released later this year.

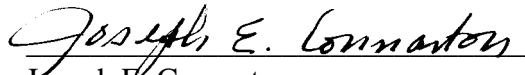
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We gratefully acknowledge the efforts of the State Retirement Board staff in completing this project.

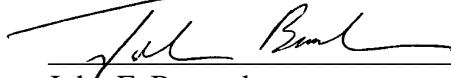
Respectfully submitted,
Public Employee Retirement Administration
Commission



James R. Lamenza
Member of the American Academy of Actuaries
Associate of the Society of Actuaries
Enrolled Actuary Number 11-4709



Joseph E. Connarton
Executive Director



John F. Boorack
Senior Actuarial Associate

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